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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,488	11/28/2003	Yasushi Shinjo	245847US0RDDIV	1101
22850	7590	08/05/2004		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER RODEE, CHRISTOPHER D				
ART UNIT		PAPER NUMBER		
1756				

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/722,488	Applicant(s) SHINJO ET AL.	
	Examiner Christopher RoDee	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-19, 22-24, 26-30, 32-34 and 36 is/are rejected.
- 7) ☒ Claim(s) 20, 21, 25, 31 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 17-19, 22-24, 26-30, 32-34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Till *et al.* in US Patent 5,890,045 in view of Suda *et al.* in US Patent Application Publication 2002/0006571.

This rejection was presented in the last Office action for claims 17-19. The rejection is extended to claims 29 and 30 for the same reasons given in the last Office action and as described below.

Applicants traverse the rejection because “there is a difference between actively altering relative speeds to apply a shear pressure and passively permitting an insubstantial difference in relative speeds.” Applicants also note that any possible inherent presence of a shear force or a difference in speed is not material because the rejection is under section 103 of the statute rather than section 102. Applicants further traverse the rejection because the combination rejection is no more than an obvious-to-try approach, which is improper noting the citations supplied.

As discussed in the last Office action, Suda teaches that the speeds $V_{P/R}$ (photoreceptor belt) and V_I (intermediate transfer body) are substantially equivalent. The reference teaches by this disclosure that some difference in speed is permissible as long as the difference is not beyond being “substantially equivalent”. The instant independent claims permit any amount of shear (claim 17) and any amount of speed difference (claim 29). Thus, even the slightest speed

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variation in Till is permitted within the scope of claim 29. This slight variation in relative speed between the photoreceptor and intermediate transfer body would be expected to produce at least some amount of shear, noting that any amount is permitted in claim 17. The Examiner agrees that the reference is not actively altering the speed to produce shear, but the claims permit any degree of shear, which would appear to fall within the scope of Till's disclosure. A small variation in speed, such as about 1 % in claims 19 and 30, would be recognized by the artisan as within the scope of being "substantially equivalent" as specified in Till.

With respect to Suda and the passages cited by applicants, the disclosure of increased agglomeration of the toner image during development would be of clear benefit in Till. In Till, the image is transferred from the photoreceptor to a receiver. Suda teaches that by using the developer and applying a voltage, the viscosity of the fluid increases and the toner particles agglomerate. This would be of advantage in Till because it would reduce the possibility that the toner image is damaged during the transfer operation. Rather than negating the proposed combination, the disclosure of Suda actually strengthens the motivation to use Suda's toner in Till because image integrity would be increased. This rejection does not constitute an obvious-to-try approach because there is ample motivation for the modifications and substitutions proposed by the Examiner.

The rejection is also extended to new claims 22 and 32 because Suda's toner particles can be formed from polymers, such as vinyl chloride, which have a Tg values above room temperature. The rejection is extended to claims 23 and 33 because the inorganic particles in Suda are present on the surface of the toner particles by a specific process, as seen in the Examples. This rejection is extended to new claims 24 and 34 because the particles having sizes of from 2 to 500 nm are present in the surface of the toner particle ($\{111\}$ [0020]) and the toner particles have a size of 2.4 to 2.9 microns in the examples. Given these sizes and the

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disclosure that the particles are in the surface portion of the toner, the artisan would have found it obvious to place from one to a few inorganic particle size thicknesses into the toner particle, which would result in sizes within the scope of the claims. The rejection is extended to new claim 27 because the inorganic particles in Suda would be recognized as pigments due to their insoluble nature. The rejection is also extended to new claims 28 and 36 based on the disclosure of the development and final transfer process in Till at the second nip and to reduce image distortion.

Allowable Subject Matter

Claims 20, 21, 25, 31, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr
26 July 2004


CHRISTOPHER RODEE
PRIMARY EXAMINER